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FOR OFFICIAL USE

1330/31/01

NATIONAL THURSDAY, 16 MAY GRAPHIC
 QUALIFICATIONS 1.00 PM – 2.45 PM
 2013 COMMUNICATION
 STANDARD GRADE
 Credit Level

	KI	DA
1		
2		
3		
4		
5		
6		
7		
8		
9		
	Total Marks	

Fill in these boxes and read what is printed below.

Full name of centre	Town
Forename(s)	Surname

Date of birth	Day	Month	Year	Scottish candidate number	Number of seat
				_____ / _____ / _____ / _____ / _____ / _____ / _____ / _____	_____

1 110 marks are allocated to this paper: 40 marks for Knowledge and Interpretation
 70 marks for Drawing Abilities

- 2 Answer all questions.
- 3 Read each question carefully before you answer.
- 4 Written answers may be in **ink** or **pencil**.
- 5 Drawings and sketches **must be in pencil**.
- 6 Sketches need only be in line form—do not spend time rendering.
- 7 Dimensions are given in millimetres or as stated.
- 8 Orthographic drawings are in third angle projection.
- 9 For each question, the element being tested and the mark allocation are shown in brackets, eg (DA 5) means a question on Drawing Abilities worth 5 marks.

10 At the end of the examination

check that your name is on every sheet;
 put the sheets in correct numerical order;
 place this sheet on top of the others;
 join all sheets together by **stapling** at the top left-hand corner;
 before leaving the examination room, you must give these sheets to the Invigilator (if
 you do not you may lose all the marks for this paper).



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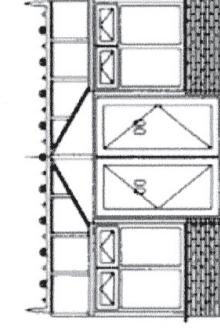
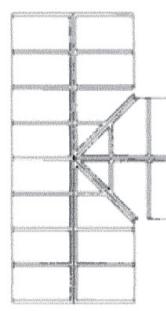
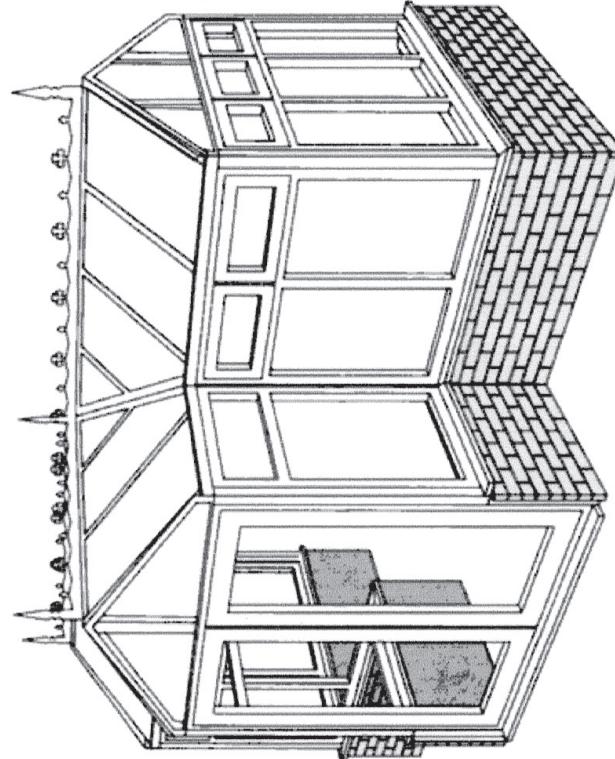
A company that designs conservatories now uses computers for all its graphic needs.

- (a) Other than speed of production state **three** advantages of using computers when compared with manual methods of producing new designs.

1

2

3

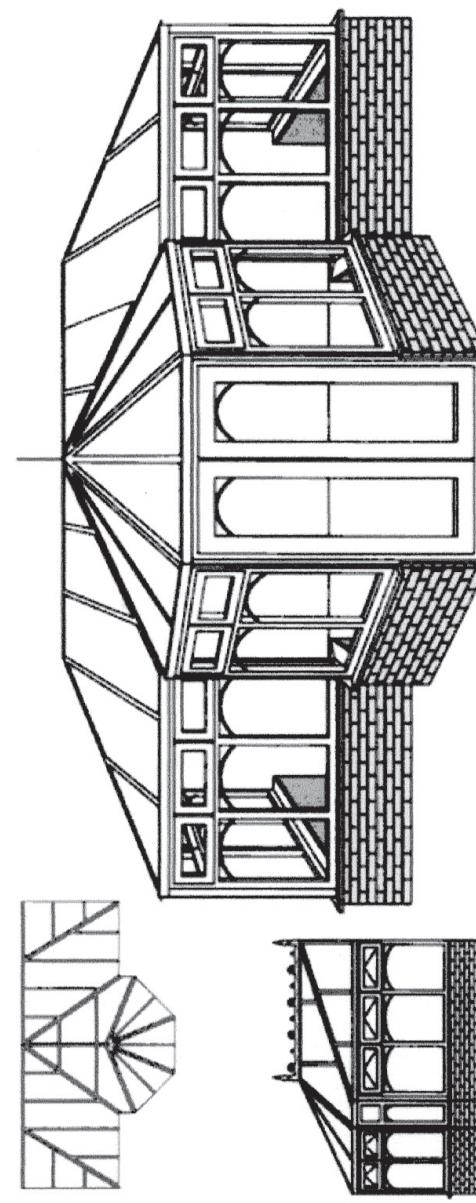


- (b) State **three** disadvantages that the firm could have found by using computers.

1

2

3



- (c) State **two** input devices that could be used to transfer the company's existing manual drawings to the computer's memory.

Device 1

Device 2

- (d) State the **type** of software package that would be used by the company for the following.

- (i) Producing an advertising leaflet, containing text and graphics, showing the latest design.

Answer

- (ii) Producing a fully dimensioned production drawing of a new conservatory.

Answer

- (iii) Producing a fully rendered graphic of the new conservatory.

Answer

KI 2

Total (KI 11)

Many different types of drawings and views are used to communicate information in the graphic industry.

View 1, View 2 and Drawing X shown opposite, are used in the engineering industry.

(a) State the name given to these **types** of views.

View 1 KI 2

(b) Explain the purpose of these drawings.

Purpose of **View 1**

Purpose of **View 2**

(c) State the name given to the **type** of drawing shown at **Drawing X**.

Drawing X KI 1

(d) Plotters are commonly used to obtain hard copies of these types of views and drawings. State the names of **two** different types of plotter.

Answer 1 KI 2

Answer 2 KI 2

(e) **View 3** is used in the building industry.

(i) State the name given to this type of view.

View 3

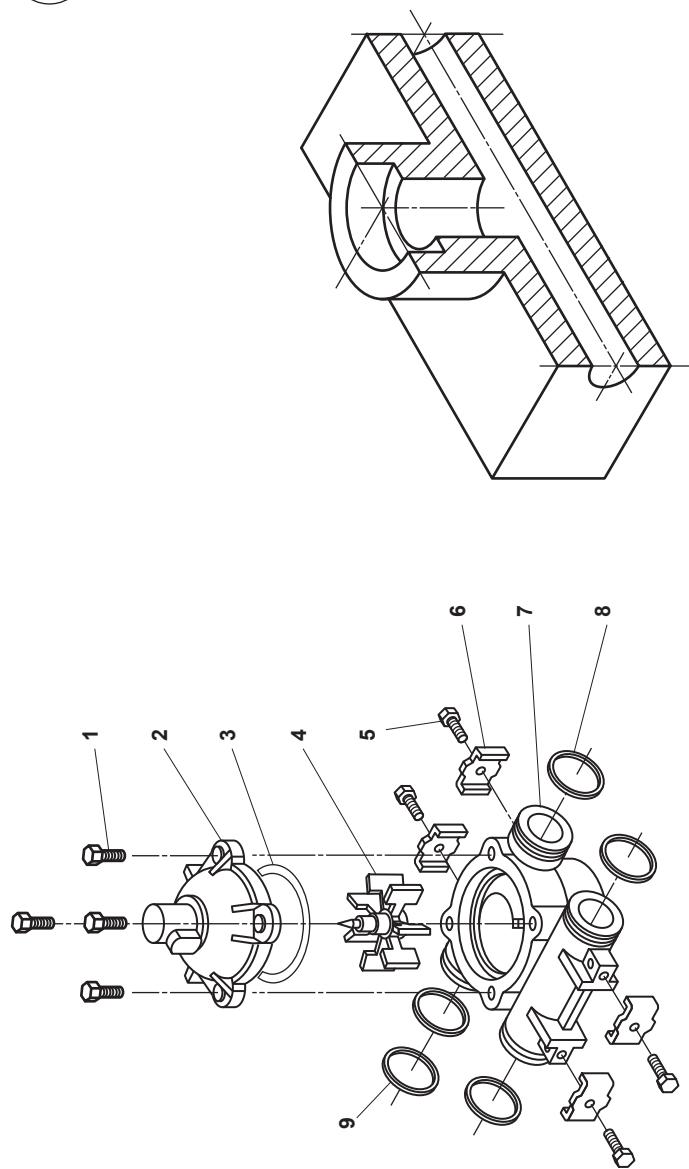
(ii) State the angle used at Q° .

Explanation

(f) Explain the meaning of 5:1 when it is written on a drawing.

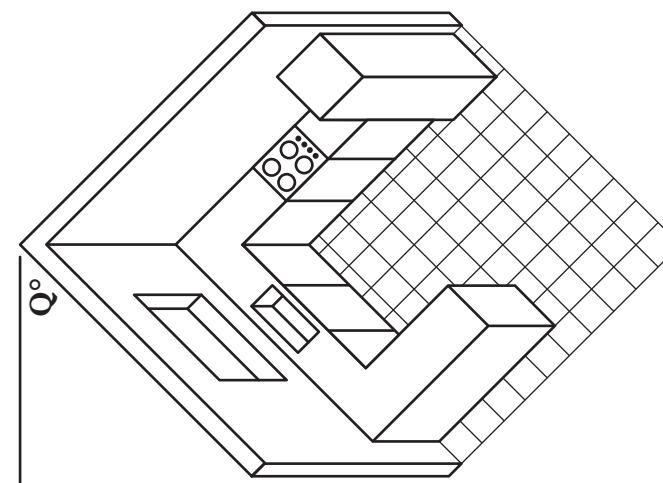
Total (KI 10)

Drawing X



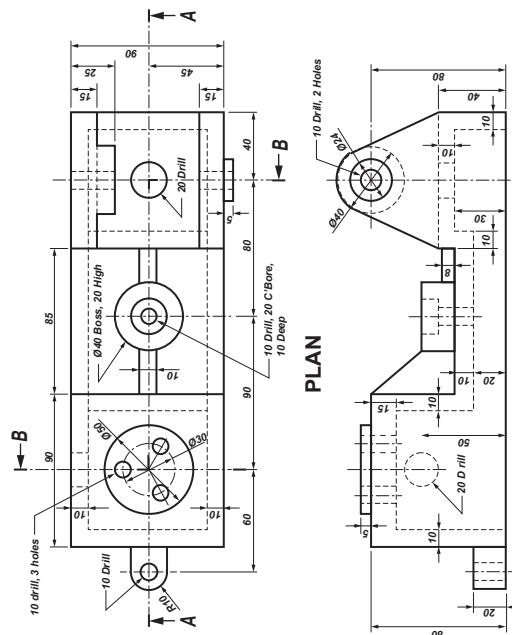
View 2

View 1



View 2

View 1



View 1

View 3

In the designing, testing, building and marketing of new vacuum cleaners, computers are now used at every stage to aid the designer.

(a) Explain how the use of computer generated models could help designers working in two different countries who are working on the same design.

Explanation

..... KI 1

(b) Other than speed of production, editing and cost, explain why not having a large built scale model would be of advantage to a small firm.

Answer

..... KI 1

(c) State **two** disadvantages of computer generated models when compared to built scale models.

1 KI 1

2 KI 2

(d) State why the company would create a backup of all their work at the end of each day.

Answer

..... KI 1

(e) State the names of **three** types of computer-generated models.

1 2 KI 1

3 KI 3

(f) The company used animation and simulation software with their new designs.

State the difference between animation and simulation.

Answer

..... KI 1

(g) State **one** way in which the company could use a computer animation of a new vacuum cleaner design.

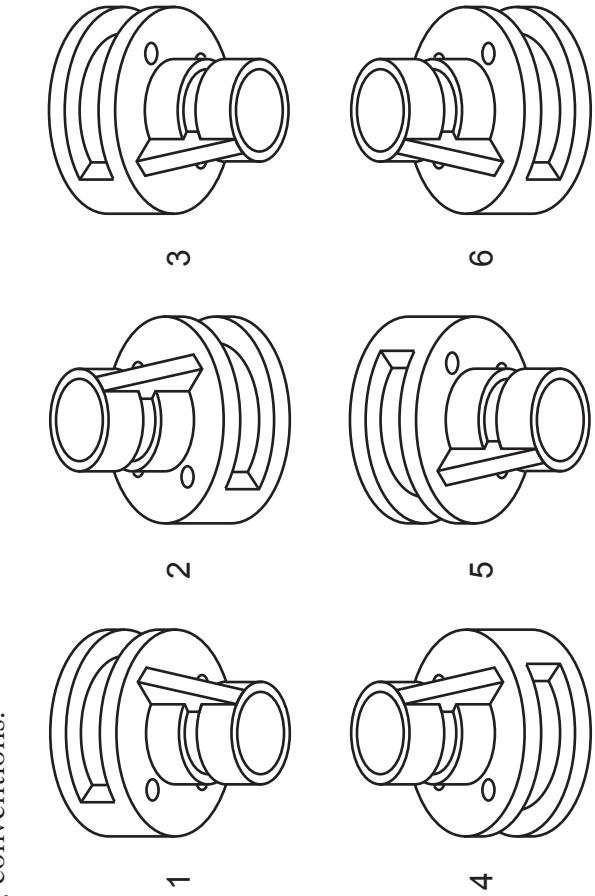
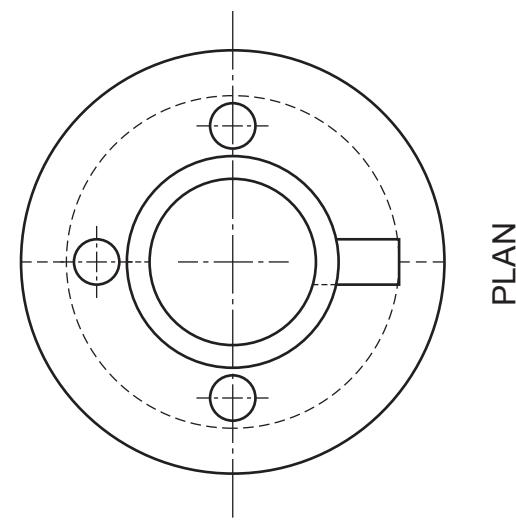
Answer

..... KI 1

Total (KI 10)



The elevation, end elevation and plan of part of a pipe bracket are shown in **Drawing X** and are drawn using BSI drawing conventions.

**Drawing X**

PLAN

(a) State which **two** of the views 1 to 6 above, represent the bracket shown in **Drawing X**.

Answer 1 **Answer 2**

(b) State the name given to the types of view shown above.

Answer

(c) State the general name given to views like the ones above, in which you see all three dimensions.

Answer

(d) Views 1 to 6 above are not drawn to scale. State **two** factors that effect the scale used for drawings.

Answer 1

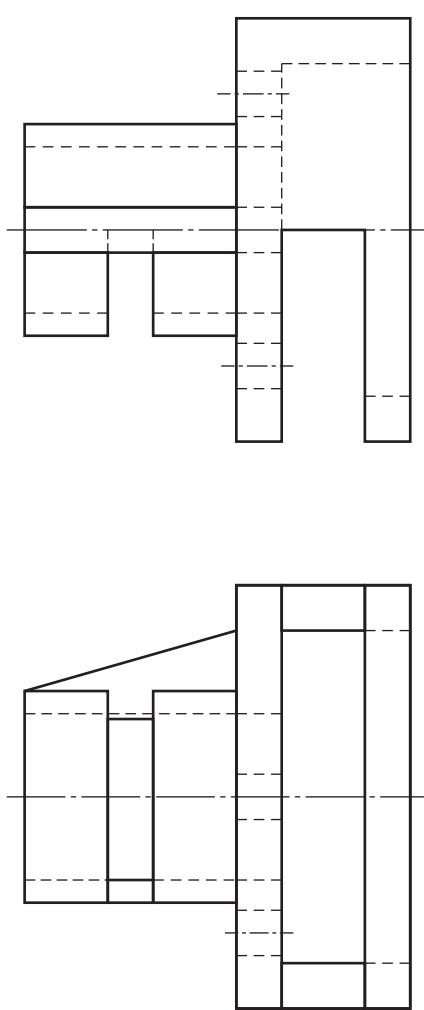
Answer 2

(e) BSI drawing conventions are commonly used in the production of new designs. State **one** possible benefit to be gained by their use.

Answer

(f) Using the correct BSI convention for dimensioning, draw a diameter and a height to the elevation on **Drawing X**.

Total (KI 9)



END ELEVATION

ELEVATION

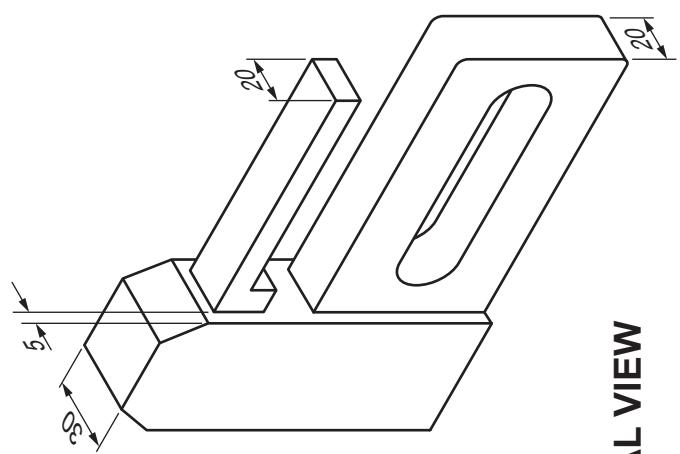
KI 2

KI 1

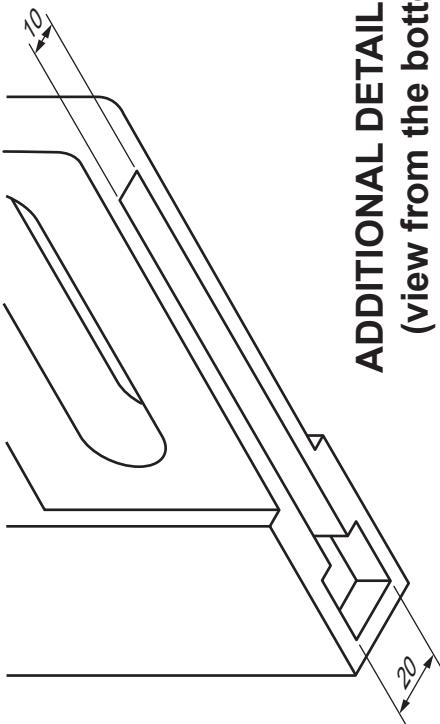
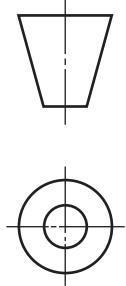
KI 2

5

a
b
c
d
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g
h
i
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l
m
n



PICTORIAL VIEW

ADDITIONAL DETAIL VIEW
(view from the bottom)

The elevation of a staple gun is given, a pictorial view and additional detail view are also shown.

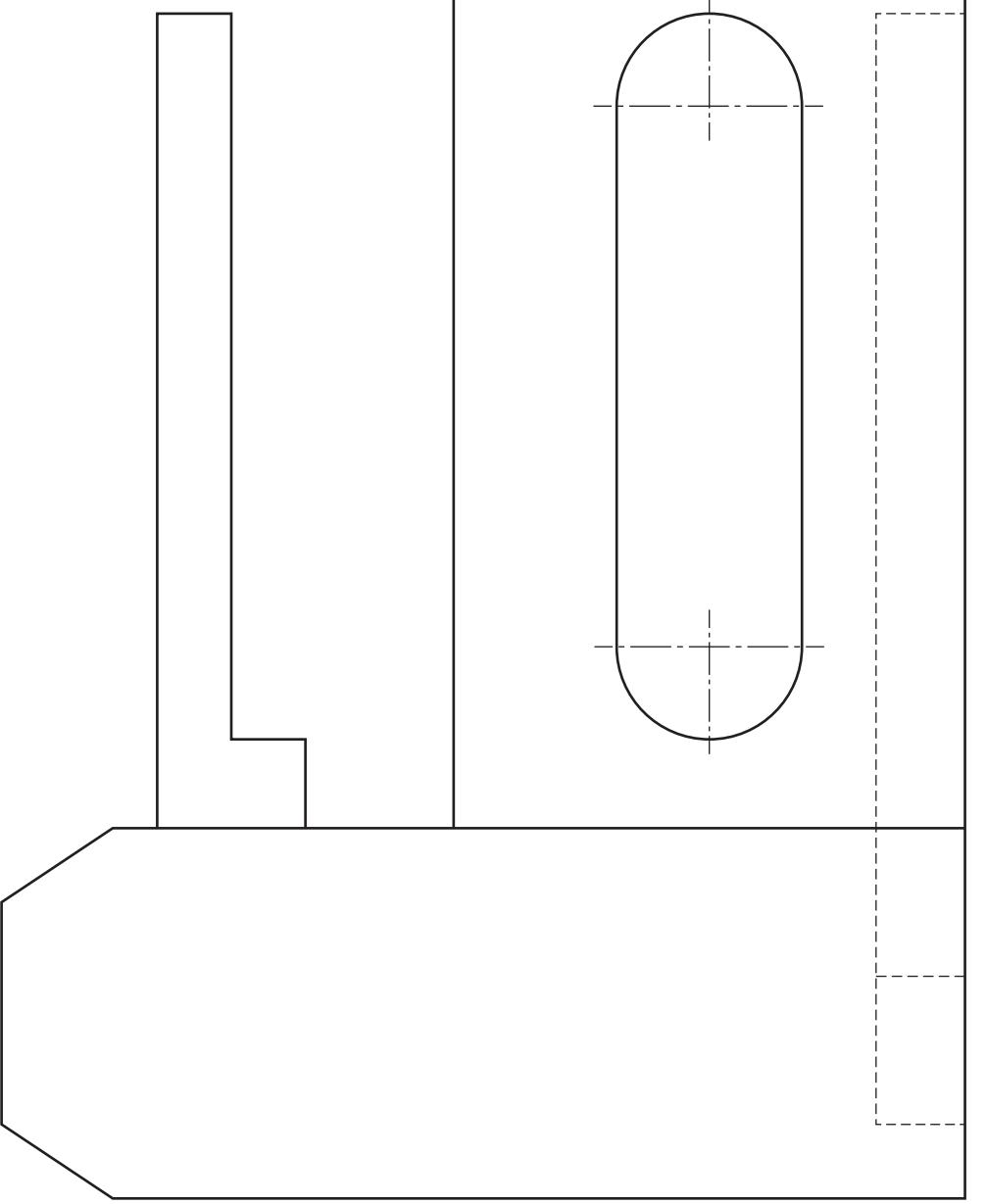
Draw, in the given positions:

- (a) the plan;
- (b) the end elevation;

Show all hidden detail.

DA 7 DA 5
Total (DA 12)

PLAN



END ELEVATION

ELEVATION

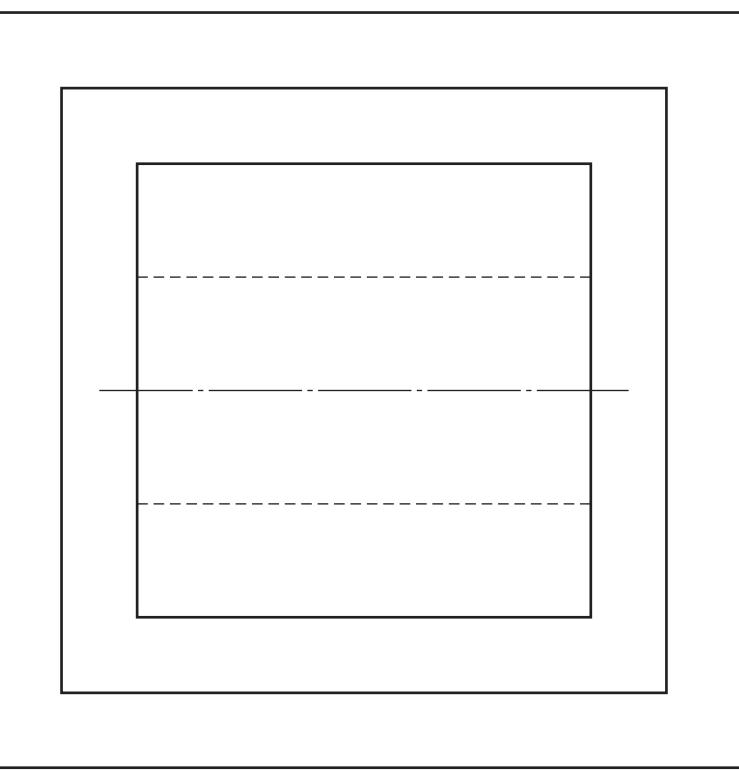
6

a
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An elevation, plan and end elevation of part of a toy windmill are given. A pictorial view of the complete windmill is also shown. (Ignore the windmill blades.)

Draw an isometric view of the windmill without blades, using the given sizes and starting point X. Do not show hidden detail.

Total (DA 15)

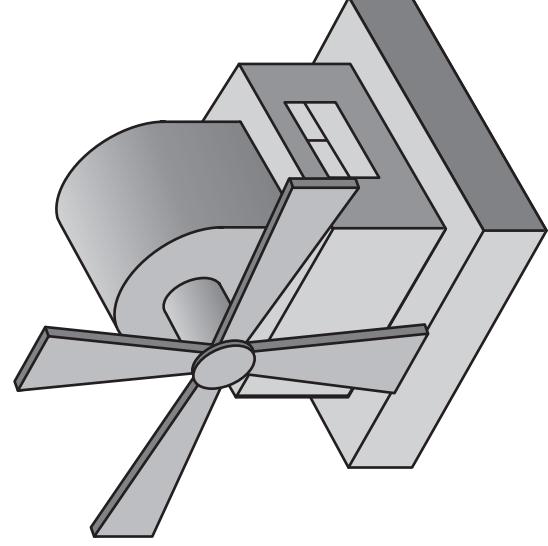


X

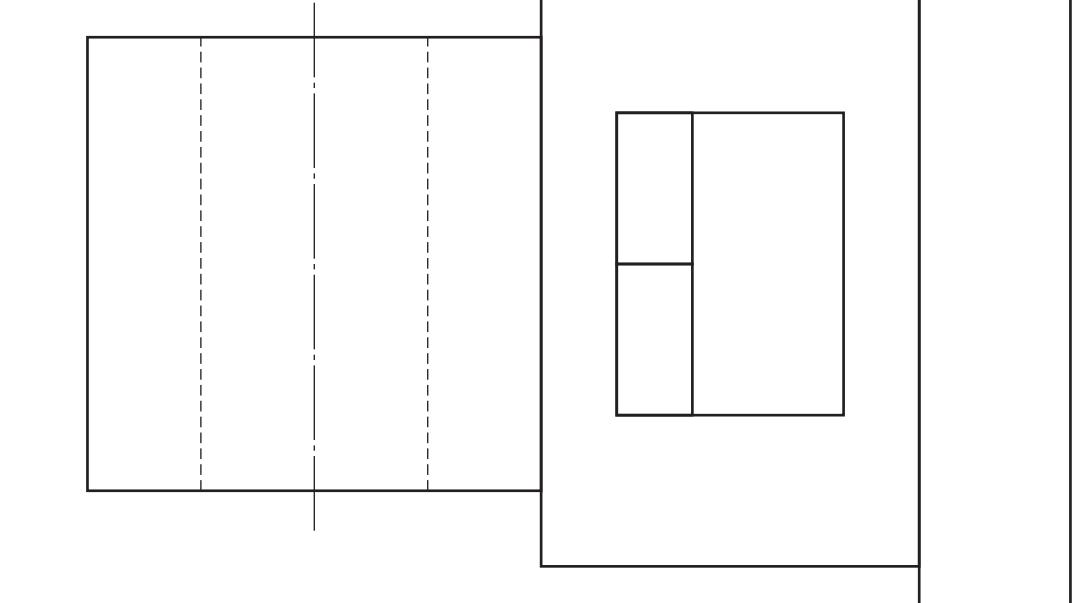
PLAN

X

-



PICTORIAL VIEW

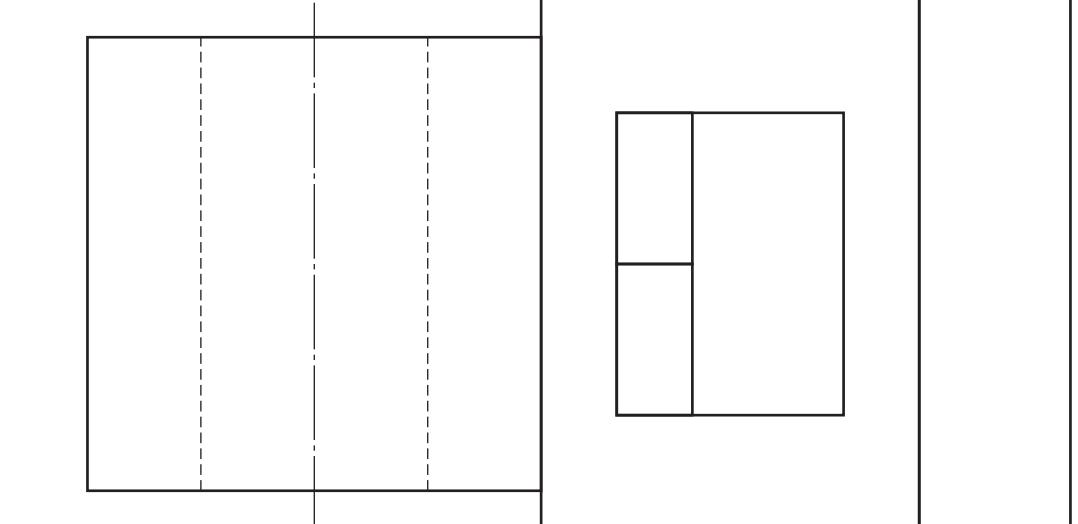


ELEVATION

X

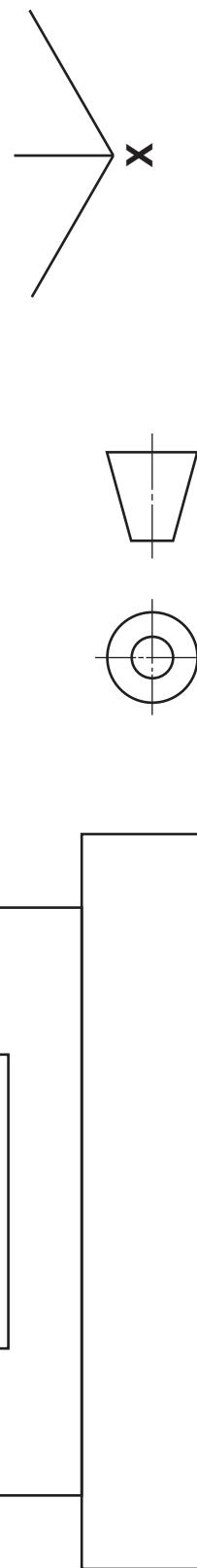
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-



END ELEVATION

X



Candidate's Name _____

[1330/31/01]

7

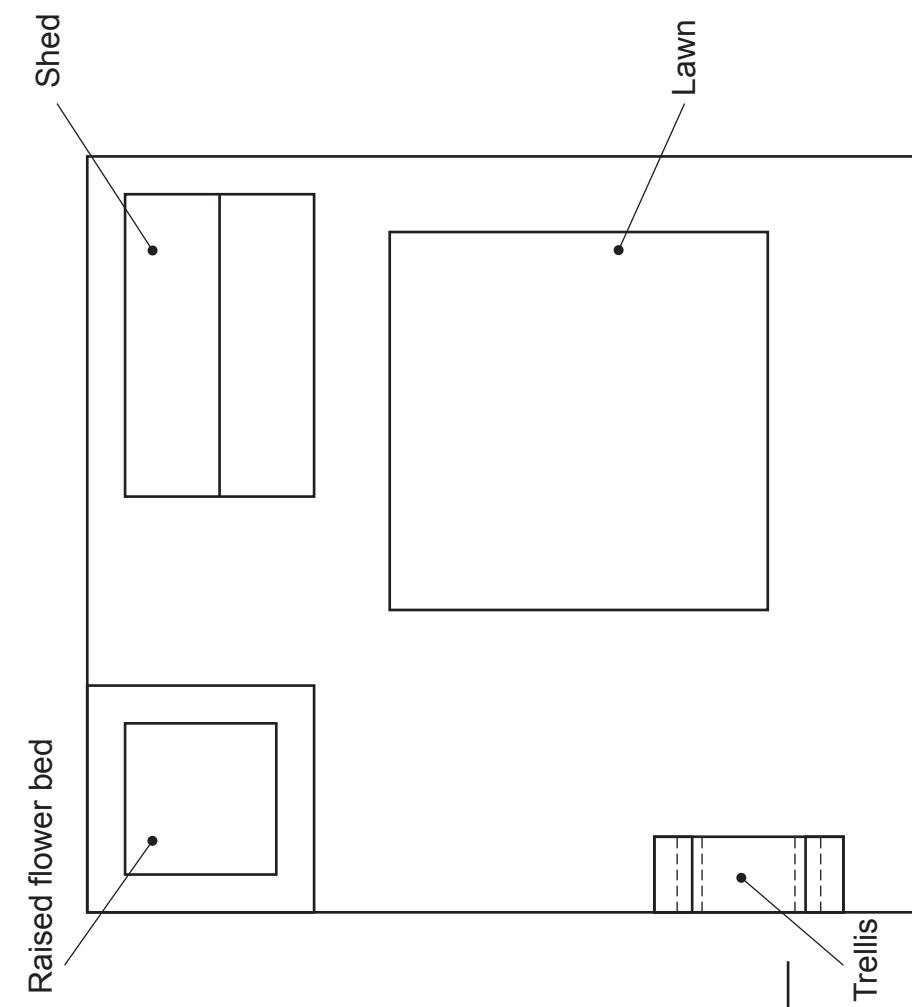
The elevation, end elevation and plan of a garden are given.

Draw a planometric view of the garden using the given start **X**.

Take all sizes from the given views.

Do not show hidden detail.

a	
b	
c	
d	
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m	
n	



PLAN

X

ELEVATION

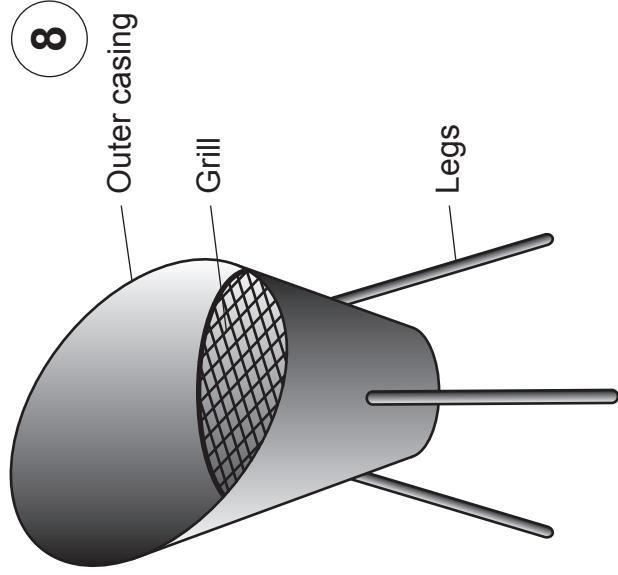
X

END ELEVATION

ELEVATION

Candidate's Name _____

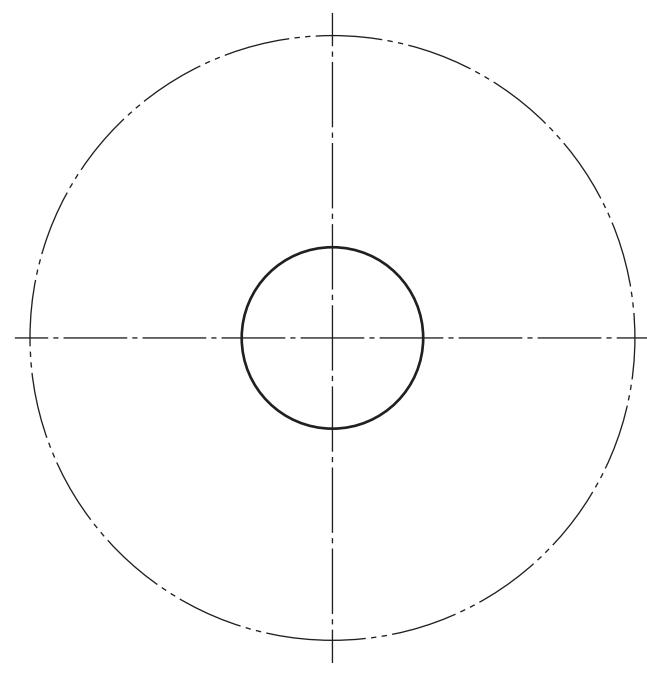
8



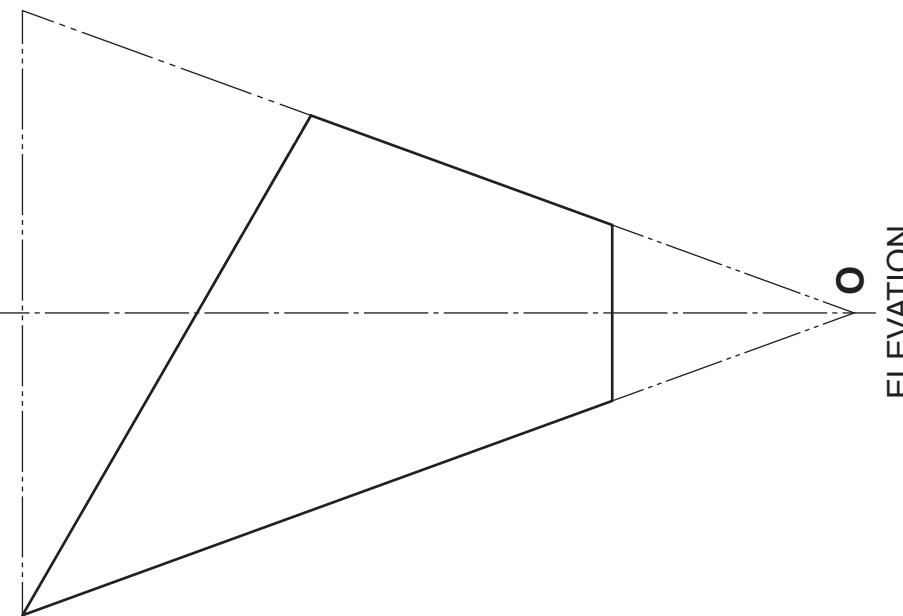
A pictorial view of a barbecue is shown. The elevation and incomplete plan of the outer casing are also given.

Draw in the position indicated:

- (a) the complete plan;
- (b) the end elevation;
- (c) the surface development (using O as the given start).

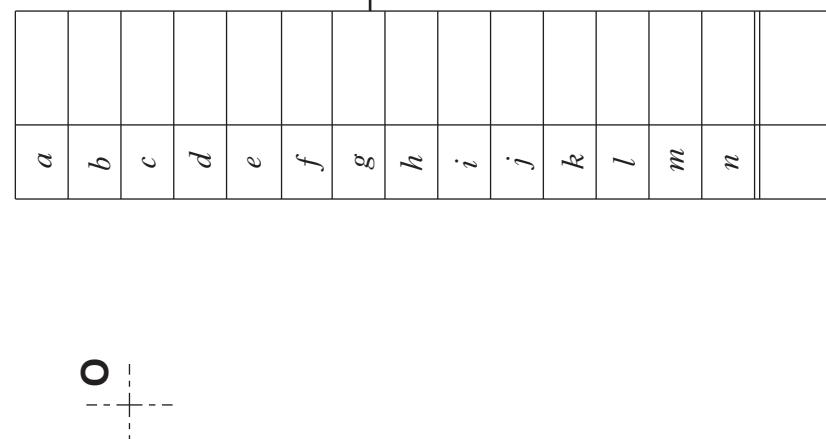


PLAN



ELEVATION

PICTORIAL VIEW



SURFACE DEVELOPMENT

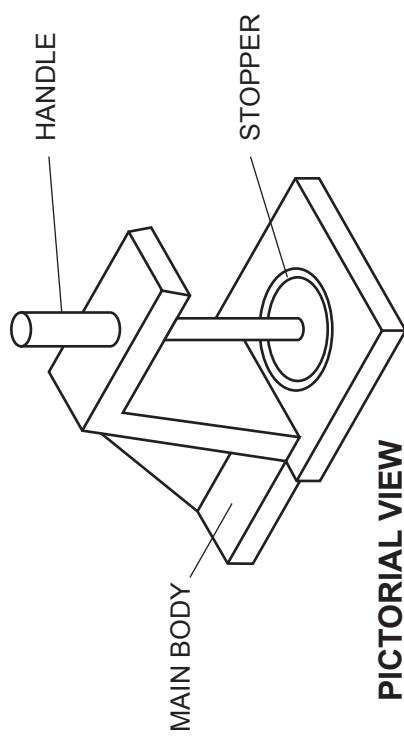
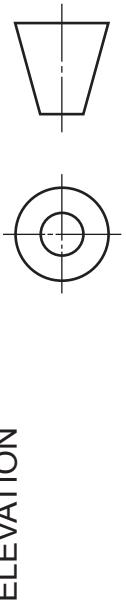
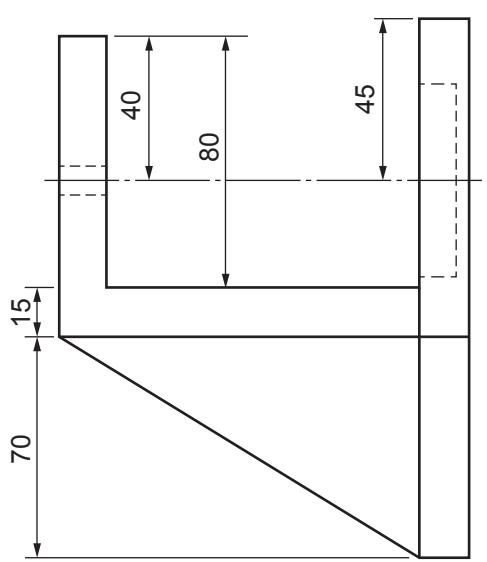
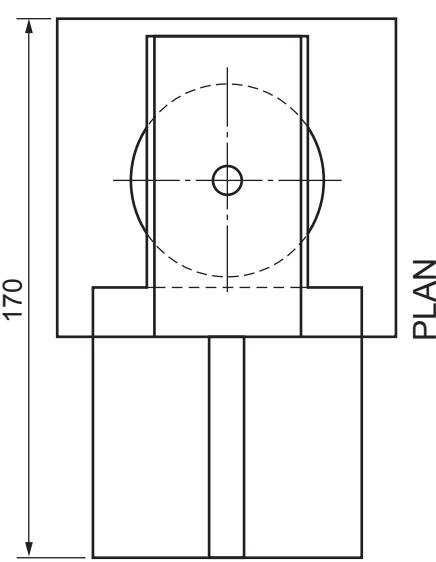
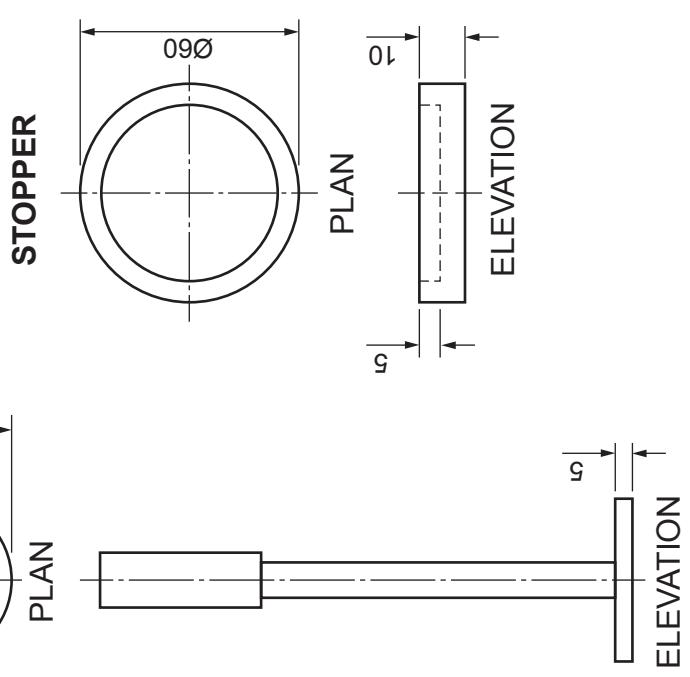


END ELEVATION



9

a
b
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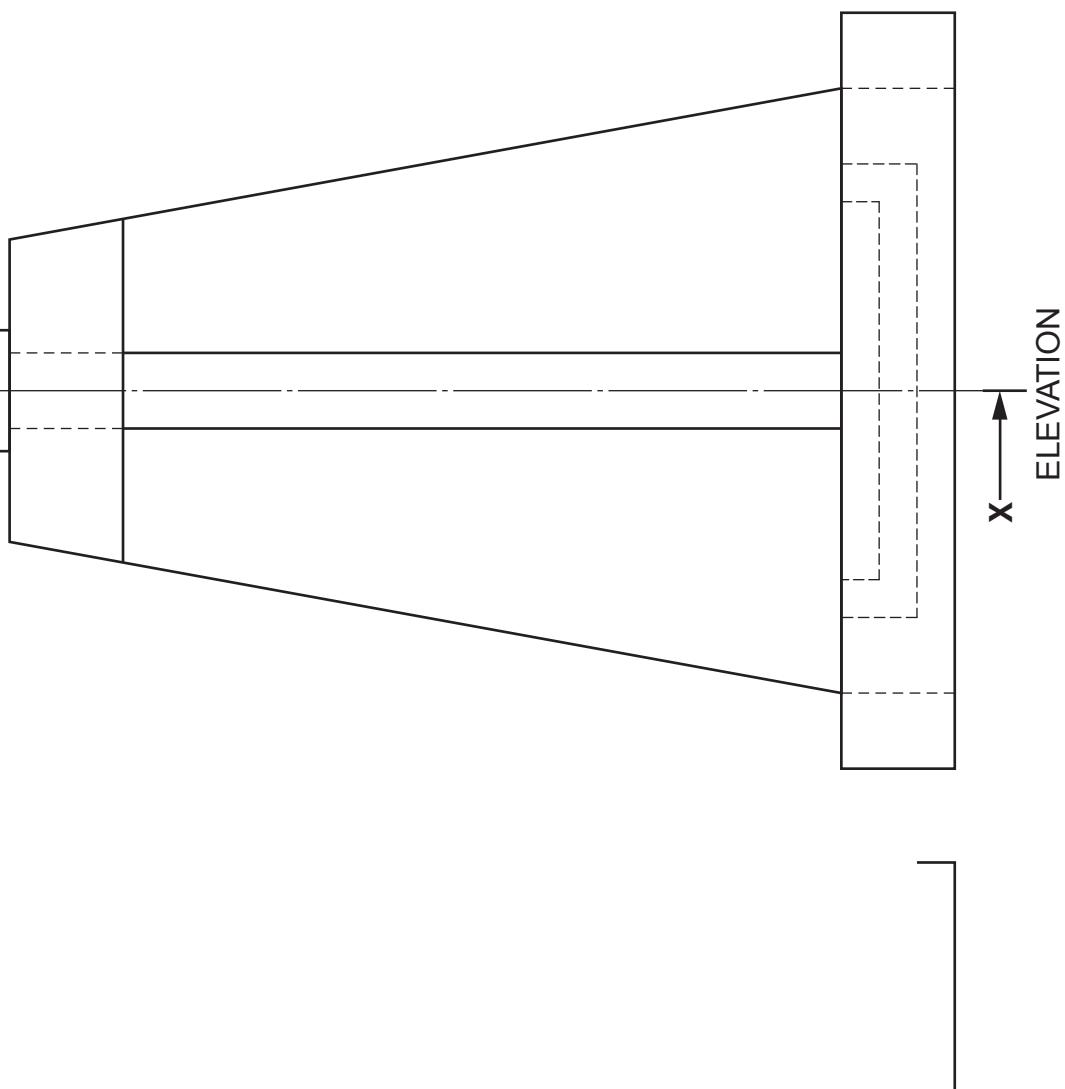


Total (DA 14)

A pictorial view of a badge making machine is shown. Detailed orthographic views of the components are also shown (not to scale).

From the given elevation, draw in the position indicated the sectional end elevation on X-X.

Do not show hidden detail.



SECTIONAL END ELEVATION ON X-X

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